NSF GRADUATE RESEARCH FELLOWSHIP

Dr. David W. Mazyck Professor Environmental Engineering Sciences <u>Seminar #2</u>: Writing the Personal Statement

Personal Statement, Previous Research, Future Goals (3 pages)

Opening Paragraph

- What will set you apart from 20,000 applicants
- Distance travelled
 - How did you get to where you are?
 - Tell a story of how you developed your passion, skills as a researcher, a student, research interest...
- You must be memorable!
- Show your passion!

Personal Statement, Previous Research, Future Goals (3 pages)

Previous Experience

- (Undergraduate Research, Internship)
 - What did you work on
 - Intellectual merit, Broader Impact
 - Independent work vs Team (leadership, mentoring)
 - What if any obstacles did you overcome
- Overall what did you learn and how you will apply lessons learned in the future
- Did you publish, present, disseminate your work

Personal Statement, Previous Research, Future Goals (3 pages)

Previous TA Experience

- What did you do?
- What was your philosophy
- Did you have a positive impact on a student(s)
- Previous Leadership Experience
 - What was your role?
 - How many people did you assist, mentor, lead

7 Questions

- 1. What did you do?
- 2. What did you learn?
- **3.** Did you work in a team?
- 4. Did you conduct independent work?
- **5.** Did you mentor anyone during the work?
- 6. Did you publish or disseminate?

• 7. Did anything fail where you had to overcome any adversity?

Personal Statement, Previous Research, Future Goals (3 pages)

Future goals

- Brief glimpse into the first few years post PhD
- Be specific!!
- State why one path or another
- How will receiving the fellowship contribute to your career goals?

Personal Statement, Previous Research, Future Goals (3 pages)

- How did you get to where you are?
- Tell a story of how you developed your passion, skills as a researcher, a student, research interest...
- List achievements, valuable contributions, communication of results...
- List all applicable experiences
- What did you learn from each experience?
- How will you pay it forward (i.e. mentorship, volunteering)

DIRECTLY FROM RATING SHEET:

Intellectual Merit

- Ability to plan/conduct research
- To work as a member of team as well as independently
- To interpret and communicate research findings

Broader Impacts

- Integrate research and education to all levels, broad context
- Encourage diversity, broaden opportunities in science/research
- Enhance scientific understanding
- Benefit society

My multicultural background with a Croatian mother and Palestinian father exposed me to many aspects of life that I would have otherwise been unaware of and allowed me to appreciate more fully the value of knowledge. Interacting with relatives from Croatia showed me the effects of a changing economic system on the middle class, while my connections with Palestinian relatives helped me better understand the hardships associated with war and conflict. I realized that many of these problems were caused not by the non-existence of a solution, but by a lack of knowledge. Throughout my childhood, my father instilled in me that it is our duty as human beings to make the world a better place and stressed the importance of wisdom as the vehicle with which to accomplish this goal.

Firmly strapped in the fighting chair, I struggle to grip my rod as it bends over and pulls towards the sea. As I reel in, I can feel myself picking up slack and so can the 100 lb sailfish on the other end of the line. The sailfish leaps from the water, thrashing its head in an effort to release itself from my circle hook. My father waits beside me with a pop-up satellite archival tag in one hand and a snooter wire snare in the other. He slips the snooter over the bill to maintain control of the sailfish while I pass off the rod and deploy my very first tag at the age of sixteen. During that summer in Panama, I tagged 12 sailfish to evaluate their migratory patterns and vertical habitat use in the easterntropical Pacific. The study revealed that, due to global climate change, reduced oxygen levels compressed the billfish habitat into a narrow layer at the ocean's surface, increasing their vulnerability to surface fisheries. With a NOAA fisheries scientist for a father, learning opportunities such as this were the foundation of my upbringing and a basis for who I am today.

In my childhood, I was captivated by the complex geometrical patterns that formed in the desert dust and swirled around in the air as I watched helicopters land. My first experience with fluids began at an early age when my father, an engineer at Boeing, took me on tours of the Boeing facility in Mesa, Arizona. This particular facility is the final production site of the AH-64 Apache helicopter, one of the world's most technologically advanced combat helicopters. It was mesmerizing to see how the helicopters manipulated the air around them to form intricate shapes with ease. At the time, I did not realize my observations related to the field of fluid flow, but the experiences provided lasting impressions that continue to motivate me to advance my education so that I can educate others.

When I was three years old and living in Cuba, my dad and eleven of his mechanic shop friends set sail for the United States on a wooden boat constructed with scrap wood they had scavenged for months. It was not his first attempt to free our family from poverty and dictatorship. Only this time, his dream was realized when, off the Floridian coast, Dad and his friends were rescued by a cruise ship and brought to the US. Today, due to foreign policy changes, this same scenario would have resulted in a different outcome. Therefore, I recognize how fortunate I am to now live in a country where my father's hard work and determination has provided a better life for our family.

KNOW YOUR AUDIENCE!